The Colorado River has always been known for its superlatives – the most volatile supplies, the most iconic landscapes, the most dammed, the most litigated, and recently, the most threatened. The Federal role in the River is unique and significant, and never more so than today. The Colorado River Future Project, a small team supported by philanthropic funding, interviewed over sixty-five thought leaders on Colorado River management to elicit their opinions about the most serious and urgent opportunities and challenges for the next Administration. Through the process of interviewing these key players, we found an extraordinary degree of consensus in identifying the most important issues that require immediate attention after the election, all of which can be addressed within existing law. These priorities, and suggestions for productive actions to address them, are presented here. A list of the interviewees and the Colorado River Future Project team follows.

THE RIVER IS A FOUNDATION OF THE WESTERN ECONOMY. More than 35 million Americans rely on the Colorado River for essential water supplies, and its five million acres of irrigated farmland provide food and forage for states throughout the Nation. The River touches eleven national parks and supports 29 Native American tribes. The economic importance of the Colorado River has been estimated at over $1 trillion annually, with $26 billion attributable to the recreational economy alone. The River is a great American treasure and should be championed as such by Federal leadership.

THE COLORADO RIVER IS IN CRISIS. Sixteen years of drought and continued overdraft of supplies have taken their toll on its major reservoirs and have stressed operational protocols, and climate change threatens further reduction to runoff. Lake Mead, the largest reservoir in the U.S., is currently filled to only 37% of its capacity, with water levels dropping relentlessly from year to year. Lake levels are hovering around the elevation at which the first ever shortage declaration on the River must be announced by the Secretary of the Interior. That declaration could come as soon as August 2017.

All of the issues discussed in these recommendations are the subjects of current, intricate, and sometimes painful discussions among the water leadership in the Basin, including principals in the Obama Administration. The progress and achievements of those discussions should be acknowledged and celebrated, but the leadership in the new Administration must take the reins quickly, assist in making further headway, and take steps to increase the opportunities for successful conclusion.

HISTORY AND RELATIONSHIPS ARE KEY. The Law of the River is a complex web but has been shown to have the flexibility needed to adjust to changing times and new challenges. Efforts to change the basic framework would be destabilizing and counterproductive.

While today’s challenges are significant and urgent, it is critical to acknowledge that leaders in the Colorado River community, both past and present, have been remarkably successful in addressing difficult issues and making progress toward a more sustainable system. Agreements have been crafted that honor the Law of the
River while facilitating the necessary evolution to accommodate current needs. The relationships on the Colorado River and this positive recent history are far different from those in other critical watersheds, such the California Bay Delta, where consensus is rare and litigation more prevalent. Concerted efforts to keep Colorado River issues out of the political arena to the greatest extent possible have been key to past successes.

The Federal role in the Colorado River Basin is more prominent than in any other western watershed. The Secretary of the Interior is the Water Master in the Lower Basin and the provider of delivery contracts. In the Upper Basin, Interior’s operation of multiple federal water projects and exercise of responsibilities under the Endangered Species Act and as manager of the public lands, USDA’s widespread on-the-ground involvement, and the federal chairmanship of the Upper Colorado River Commission all provide a foundation for federal participation and leadership in brokering and facilitating solutions. It is vital to keep in mind, however, that the seven Basin States hold the rights to Colorado River water and significant operational changes must be jointly supported. In addition, the participation of Tribes, major municipal water providers, agricultural districts and groups, environmental and recreation interests, and the business community has been and will be key to viable solutions and multi-benefit projects.
A top priority for the new Administration is completing the negotiations between the United States and Mexico to extend and expand the provisions of a recent, precedent setting Colorado River agreement (Minute 319) that expires at the end of 2017, via Minute 32X (so named because the exact number is as yet unknown). These provisions move the U.S. closer to a widely-supported goal of managing the Colorado across the boundary as one river, and include the sharing of shortages and surpluses, permission for Mexico to store water in U.S. Colorado River reservoirs, binational investments in water conservation projects, short-term transboundary water exchanges, and commitment of water and dollars to habitat restoration in the Colorado River Delta. These provisions were developed as a package, and stakeholders caution they cannot be cherry-picked. The negotiations with Mexico are at a decisive stage, and should not be derailed by unrelated political considerations.

The Bureau of Reclamation leads the negotiations, together with the State Department, and past success has been based on inclusion of both the Colorado River Basin States and conservation NGOs, resulting in strong domestic support for the agreement as well as non-federal implementation dollars (from U.S. water users and philanthropies). The Department of State is accustomed to negotiating international treaties on its own and unused to the degree of state and NGO involvement that has been occurring in the Mexican discussions, but this involvement is crucial. The U.S. has a strong interest in securing Mexico’s commitment to quantified shortage sharing that aligns with the prospective Lower Basin Drought Contingency Plan (discussed below), to avoid the prospect of unilaterally reducing deliveries to Mexico, which may have broad geopolitical implications. These discussions must be completed during 2017 or there will be greater uncertainty in pressured times and much hard won progress will be lost when Minute 319 expires.

THE URGENT NEED FOR COLORADO RIVER LEADERSHIP AND ACTION

- Jan. 2017 - CAP ag supply reduced
- Spring 2017 - Farm Bill hearings; Tribal water study released
- Aug. 2017 - Study released determining whether shortage is declared
- Dec. 2017 - Minute 319 expires; Salton Sea deliveries terminate
- Jan. 2018 - Reduction in deliveries if shortage declared
- 2018 - Farm Bill consideration
- 2020 - Formal reopening of consultation on 2007 Interim Guidelines
- 2024 - Further reduction in CAP ag supply
- 2026 - Interim Guidelines expire
**URGENT - STABILIZE LAKE MEAD THROUGH IMPROVED LOWER BASIN WATER MANAGEMENT**

Lake Mead water levels are dangerously close to the first shortage trigger (at 1075 feet of elevation). The Lower Basin states and key water agencies are in the midst of “drought contingency plan” (DCP) efforts that are intended to mitigate the impact of drought and over-consumption through demand management (i.e., conservation) and amending curtailment schedules—to start earlier and cut deeper. Continued strong Federal agency leadership is critical to help drive these discussions to closure. Additional Federal funding may well be required to seal a deal. A credible Federal alternative should be crafted that can be put in place should DCP efforts fail. Potential alternatives include allocating evaporation and system losses to the Lower Basin states or reducing deliveries to users in these states by the amount of the Mexican obligation.

Despite general agreement about the contours of a viable DCP, two key intra-state impediments have arisen. First is the need within California to make progress on a Salton Sea solution, as inflows to the Sea continue to diminish because of additional agricultural water conservation in the Imperial. A shrinking Salton Sea raises serious public health and environmental habitat issues. After December 2017, mitigation flows to the Sea will cease, and the problem takes on even greater urgency. A recently executed MOU between Interior and the California Natural Resources Agency provides an emerging roadmap to a Salton Sea solution and it **should be implemented immediately**. Within Arizona, the chief concern is the impact of the proposed new curtailment schedules on Central Arizona Project water users, which may require new funding arrangements and tough decisions about which uses merit compensation and which do not.

Many parties are concerned that the DCP is insufficient to eliminate the “structural deficit”—the reality that Lower Basin water use consistently exceeds reliable inflows by over 1 million acre-feet per year. Truly sustainable management of the Colorado River requires a complete structural deficit solution; in this regard, the DCP is necessary but not sufficient. Progress on this issue will require federal and state leadership in the future.

**Note:** It is possible that Minute 32X and/or the Lower Basin Drought Contingency Plan will be completed during the Obama Administration. If so, these priorities shift to **immediate implementation of both of these agreements.**

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**PRIORITY - WORK TOWARD SUSTAINABLE UPPER BASIN WATER MANAGEMENT**

One of the critical components of the Upper Basin’s Colorado River drought contingency planning is interconnected operations of the reservoirs of the Colorado River Storage Project. A Memorandum of Understanding between the Upper Basin states and the Bureau of Reclamation on this flexible “drought operation” of the reservoirs is under discussion and a written draft of the MOU is circulating. **It should be finalized as quickly as possible.**

A more difficult and longer-term component of Upper Basin drought planning is managing overall demand for water to stabilize water levels in Lake Powell or meet the delivery requirement to the Lower Basin states. **Federal participation in these demand management discussions together with continued and increased Federal funding for “system conservation” are both necessary and critical to success. The inability to “shepherd” water to particular storage locations and across state lines is seen as a significant legal barrier to sustainable Upper Basin management, and the new Administration can convene and facilitate practical discussions about this issue.**
**PRIORITY - RESOLVE TRIBAL WATER CLAIMS TO PROVIDE GREATER SYSTEM CERTAINTY**

The next Administration should put a high priority on settling unresolved tribal water claims in the Colorado River Basin. Much progress has been made in reaching agreements with Tribes, but several claims remain unresolved. As the basin struggles to manage demands in a sustainable manner, it is essential to quantify the remaining tribal claims and reach closure on how they will be satisfied.

Increased involvement in basin management discussions and decisions is a priority for tribes, and Department of the Interior agencies are charged with pursuing cooperative arrangements with tribes for the management of natural and cultural resources pursuant to Secretarial Order 3342. This participation may also require funding to support increased technical capacity for the interested tribes.

In addition, consideration should be given to allowing tribes to have more freedom in determining the use of their water rights, including the opportunity to lease water for off-reservation use. The Ten Tribes Partnership and the Bureau of Reclamation will soon complete a three-year study on the uses and possible marketing of tribal water rights and will likely publish their report in early 2017. This process should produce improved information about tribal water rights that can inform consideration of expansion of permissible uses and help resolve difficult issues concerning unused water. Amendments to existing settlement agreements and new legislation may be required.

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**PRIORITY - IMPROVE USDA-DOI COORDINATION TO LEVERAGE FUNDING AND EXPERTISE**

To accomplish its goals of effectively addressing drought impacts, increasing water conservation, and managing resources in the Colorado River Basin, the new Administration’s Executive Branch agencies should collaborate with each other to coordinate activities, leverage resources, and secure additional resources. The Administration should build on existing partnerships between the Department of the Interior and the Department of Agriculture and on the 2016 agreement addressing DOI’s WaterSMART program and USDA’s conservation programs to leverage resources and conservation tools. When these agencies work together, they can capitalize on their respective special relationships with the states and water users (Bureau of Reclamation) and the agricultural community (Natural Resources Conservation Service).

Working together in Washington, DC and in the field to identify the right projects that create multiple benefits (e.g. water conservation, agricultural resilience, increased profitability, environmental flows) will showcase the new Administration’s approach to making government work. Collaboration in the Colorado River Basin should serve as a model for other regions.

The Administration should designate empowered point persons in one or both departments, who have the leadership skills to convene agencies and be honest brokers who can ensure cross-government dialog and collaboration. These designated leaders can also work to make progress on the Minute 32X, drought contingency planning, and Salton Sea issues mentioned above. These efforts should be pursued early in the Administration to create the platform for executing the activities that need to be completed during the first term. The Administration should also emphasize flexibility in the development of its policies governing agricultural conservation programs for the next Farm Bill, and should recommend that NRCS grant programs be deployed to improve river conditions as well as on-farm conservation measures.
Colorado River stakeholders articulated broad agreement on the critical issues that must be addressed immediately. This concurrence offers an opportunity to the next Administration to help make measurable progress on the path toward a better-balanced, more sustainable river system.

INTERVIEWS CONDUCTED:

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization/Position</th>
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<tbody>
<tr>
<td>Beth Bardwell</td>
<td>Audubon New Mexico</td>
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<tr>
<td>Herb Becker</td>
<td>Jicarilla Apache Tribe</td>
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<tr>
<td>Brian Betcher</td>
<td>Maricopa-Stanfield Irrigation and Drainage District</td>
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<tr>
<td>Tom Buschatzke</td>
<td>Director, Arizona Department of Water Resources</td>
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<tr>
<td>Camille Calimlim Touton</td>
<td>Deputy Assistant Secretary, Water and Science, U.S. Department of the Interior</td>
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<tr>
<td>Mike Connor</td>
<td>Deputy Secretary, DOI</td>
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<td>Chuck Cullom</td>
<td>Central Arizona Project</td>
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<tr>
<td>Peter Culp</td>
<td>CK BlueShift/Culp &amp; Kelly, LLP</td>
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<tr>
<td>James Eklund</td>
<td>Director, Colorado Water Conservation Board</td>
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<tr>
<td>John Entsminger</td>
<td>General Manager, Southern Nevada Water Authority</td>
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<tr>
<td>John Fleck</td>
<td>Journalist and Director of Univ. of New Mexico Water Resources Program</td>
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<tr>
<td>Terry Fulp</td>
<td>Regional Manager, Lower Colorado Region, Bureau of Reclamation</td>
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<tr>
<td>Jennifer Gimbel</td>
<td>Former Principal Deputy Assistant Secretary for Water and Science, Dept. of the Interior</td>
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<tr>
<td>Amy Haas</td>
<td>General Counsel, New Mexico Interstate Stream Commission</td>
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<tr>
<td>Ellen Hanak</td>
<td>Director, Public Policy Institute of California Water Policy Center</td>
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<td>Felicity Hannay</td>
<td>Federal Commissioner, Upper Colorado River Commission</td>
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<tr>
<td>Jayne Harkins</td>
<td>Executive Director, Colorado River Commission of Nevada</td>
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<tr>
<td>Taylor Hawes</td>
<td>The Nature Conservancy</td>
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<td>Melinda Kassen</td>
<td>WaterJamin</td>
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<td>Kevin Kelley</td>
<td>Imperial Irrigation District</td>
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<td>Mary Kelly</td>
<td>CK BlueShift/Culp &amp; Kelly, LLP</td>
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<td>Dan Keppen</td>
<td>Family Farm Alliance</td>
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<td>Jeff Kightlinger</td>
<td>General Manager, MWD</td>
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<tr>
<td>Ted Kowalski</td>
<td>Program Officer, Walton Family Foundation</td>
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<tr>
<td>Eric Kuhn</td>
<td>Secretary and General Manager, Colorado River Water Conservation District</td>
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COLORADO RIVER FUTURE PROJECT TEAM:

Jennifer Pitt, Sally Ericsson, Andrea Keller Helsel, Larry MacDonnell, Doug Kenney, Anne Castle
**INTERVIEWS CONDUCTED:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Role</th>
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<tbody>
<tr>
<td>Jim Lochhead</td>
<td>CEO and Manager, Denver Water</td>
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<tr>
<td>Craig Mackey</td>
<td>Protect the Flows</td>
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<tr>
<td>Tim Male</td>
<td>Associate Director for Conservation and Wildlife, White House Council on Environmental Quality</td>
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<td>Felicia Marcus</td>
<td>Chair, California State Water Resources Control Board</td>
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<td>Alex McDonough</td>
<td>Staff, Sen. Harry Reid</td>
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<tr>
<td>Shaun McGrath</td>
<td>Administrator, EPA Region 8</td>
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<tr>
<td>Sharon Megdal</td>
<td>Director, Arizona Water Resources Research Center</td>
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<tr>
<td>Eric Millis, Norm Johnson, Robert King</td>
<td>State of Utah, Division of Water Resources</td>
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<tr>
<td>Ann Mills</td>
<td>Deputy Under Secretary for Natural Resources and Environment, USDA</td>
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<tr>
<td>Pat Mulroy</td>
<td>Brookings Institute (Formerly SNWA)</td>
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<td>Armin Munevar</td>
<td>CH2M HILL</td>
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<td>David Nimkin</td>
<td>National Parks Conservation Association</td>
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<td>Don Ostler</td>
<td>Executive Director, Upper Colorado River Commission</td>
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<td>Pat O'Toole</td>
<td>President, Family Farm Alliance</td>
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<td>Jonathan Overpeck</td>
<td>University of Arizona</td>
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<td>Stanley Pollack</td>
<td>Counsel, Navajo Nation</td>
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<tr>
<td>Brent Rhees; Marlon Duke; Chris Cutler; Malcolm Wilson</td>
<td>Upper Colorado Region, Bureau of Reclamation</td>
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<tr>
<td>Jack Schmidt</td>
<td>Director, Center for Colorado River Studies, Utah State University</td>
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<tr>
<td>Laura Sherman</td>
<td>Staff, Sen. Michael Bennet</td>
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<tr>
<td>Lester Snow</td>
<td>Resources Legacy Fund (formerly Water Foundation)</td>
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<td>Melanie Stansbury</td>
<td>Staff, US Senate Committee on Energy and Natural Resources</td>
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<tr>
<td>Tanya Trujillo</td>
<td>Executive Director, Colorado River Board of California</td>
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<tr>
<td>Pat Tyrrell</td>
<td>Wyoming State Engineer</td>
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<tr>
<td>Brad Udall</td>
<td>Colorado Water Institute, Colorado State University</td>
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<tr>
<td>Darryl Vigil</td>
<td>Official Spokesperson, Ten Tribes Partners</td>
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<tr>
<td>Reagan Waskom</td>
<td>Director, Colorado Water Institute, Colo. State Univ.</td>
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<tr>
<td>John Watts</td>
<td>Staff, Sen. Dianne Feinstein</td>
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<tr>
<td>Jason Weller</td>
<td>Chief, Natural Resources Conservation Service, USDA</td>
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<tr>
<td>Bruce Wilcox</td>
<td>State of California/Salton Sea lead</td>
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<tr>
<td>Tony Willardson</td>
<td>Executive Director, Western States Water Council</td>
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<td>Dick Wolfe</td>
<td>Colorado State Engineer</td>
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<tr>
<td>Scott Yates</td>
<td>Trout Unlimited</td>
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* A few interviewees requested that their input be provided anonymously and, therefore, are not listed.